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ABSTRACT

The values and processes which underlie people's birth planning decisions were studied via decision theory. Sixty-three married couples including 23 with no children, 33 with one child, and 27 with two children were presented with a large set of personal values related to birth planning decisions. Individuals rated the importance or utility of each value and the subjective probability that each value would be realized if the couple were to elect to have a (another) child in the next two years. The subjective expected utilities were computed and compared between husbands and wives within the same parity between husbands across parities, and between wives across parities. Husbands and wives were remarkably homogeneous with respect to subjective expected utilities associated with birth planning decisions in all of the three parity groups. The motivations for and against child bearing, however, were found to differ as a function of parity among both husbands and wives. (Author)

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BIRTH PLANNING VALUES AND DECISIONS: PRELIMINARY FINDINGS[1]

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BIRTH PLANNING VALUES AND DECISIONS: PRELIMINARY FINDINGS

For the most part, investigations of childbearing have been of a demographic nature (Bumpass & Westoff, 1970; Fawcett, 1970; Freedman, Coombs, & Bumpass, 1965; Kiser & Whelpton, 1953; Ryder & Westoff, 1971). While this research has revealed the geographical and sociological determinants of childbearing, it tells us little about the factors that influence individual couples as they consider whether to have or not have a (another) child. After all, demographic data are but gross summaries of the results of multitudes of such couples' birth planning decisions. It is time, therefore, to look more closely at these decisions.

Attempts to discuss birth planning as a purposeful and structured decision process often meet with derision -- "Children aren't planned, they just happen." This cynicism is belied by the fact that contraception is used to control the timing and number of pregnancies (Westoff, 1972).

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Little information exists, however, about the factors that individual couples ponder when making the decision to have a child. Information about these factors is basic to influencing birth decisions, both to implement health or social policy and to aid couples in making the decision that will be most personally satisfying to them. This article describes the development and initial findings of a project aimed at providing knowledge about the process and determinants of birth planning decisions.

Basic Assumptions

The first assumption underlying the present research is that at least part of what appears to be irrationality in birth planning decisions results from the fact that people have a limited span of apprehension and that they have difficulty keeping all the important variables in mind at any one time (Edwards, Lindman, & Phillips, 1965). As a result, we often approach complex decisions in a piecemeal manner -- focusing now on these considerations, now on those. Sometimes this leads to indecision, sometimes to decisions based on only part of the set of relevant factors, and sometimes the difficulty and emotional wear-and-tear lead to the decision going by default.

The second assumption is that whatever the factors being focused upon at the moment of decision, the individual will choose that decision alternative which promises to be of maximum benefit to himself; the way in which benefits are evaluated is in concordance with an appropriate and mathematically defensible model from decision theory (Edwards, 1961). The model used in this research is explained below. Let us make it clear from the

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beginning, however, that we have no illusions that human decision makers slavishly, or even consciously, follow the dictates of decision theory. It is just that, contrary to popular (and, oftimes, professional) opinion, the bulk of human decisions serve fairly well in that they generally lead to desirable results; a model that has these same properties is bound to have some degree of predictive ability. Moreover, there is empirical evidence, cited below, that in at least some circumstances behavior can be predicted with fair accuracy using the proposed decision model, or its conceptually similar models. In light of this, it seems reasonable to begin our research with this model and to abandon or modify it later as the results require [See Barclay, Beach, & Braithwaite (1971) for the logic of using such models in psychological research].

From the first two assumptions we hypothesize that, if people can be helped to think about the vast number of decision-related factors in an explicit and orderly manner (specifically, by dividing the variables into a hierarchy of meaningful sets, subsets, etc. for separate consideration), a good deal of the "irrationality" will disappear. Subsequent decisions will be more nearly optimal, in that they can be predicted fairly well by the decision model.

The thrust of the research, therefore, is to develop a method of helping people make an orderly examination of the variables involved in the birth planning decisions (i.e., their personal values and their expectations that one decision or the other will lead to the eventual realization of these values) and to predict the decisions. The scientific aim is to learn more about the variables people consider relevant to birth planning and to

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see whether decision theory can reasonably be used as a model of the birth planning process.

The Model

A thorough explanation of the decision model and its logical and experimental underpinnings can be obtained in Lee (1971). For our purposes, it is sufficient to say that the analysis of a birth planning decision begins with the personal values that the individual decision maker sees to be related to the birth of a child. Then it moves to assaying the importance, or utility (U_i) of each value to the decision maker, the subjective probabilities (P_i) that each value will be realized if the decision maker were to elect to have the child, and the subjective probabilities ($1-P_i$) that each value will be realized if the decision maker were to elect not to have the child. The decision model treats the two alternatives, child vs no child, as two gambles and calculates the net worth of each gamble, weighting the utilities by the probabilities in order to take riskiness into account. Because the calculations use the decision maker's own judgments of the utilities and probabilities, the final net worth is regarded as subjective. Because the calculations take the degree of riskiness into account, the final net worth is regarded as merely an expectation. And, because the calculated net worth is in terms of the decision maker's own private evaluative system rather than in terms of dollars or the like, it is regarded as a utility. Therefore, the result of the model's prescribed calculations is termed a subjective expected utility (SEU) for having a child, $SEU_Y = \sum_{i=1}^{n} U_i P_i$ and for not having a child, $SEU_N = \sum_{i=1}^{n} U_i(1-P_i)$, where the sigma indicates that the products of the

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utilities and the subjective probabilities for each value are to be summed over the entire range, i, of values associated with the decision. In short, each SEU represents the net worth, (balancing the utility of good and the disutility of bad and the various probabilities of these good and bad things coming to pass), the decision maker could expect to have accrue to him if he were to elect the one or the other course of action. Of course, the most reasonable thing to do is to elect the course that has the maximum expectecd net worth (called the maximization of SEU).

The relative favorability of the two courses of action can be summarized by a difference score: $D = SEU_Y - SEU_N$. When the difference is highly positive, the decision maker should elect to have a child. When it is highly negative, the decision should be not to have a child. When the difference is very close to zero, ambivalence exists and more information is needed to break the deadlock.

Prior Research

The usefulness of the foregoing depends upon the extent to which subjective probabilities and utilities can be reliably measured and whether they can be used in the model's calculations to predict decisions successfully. There is ample evidence that subjective probabilities can be reliably measured and that they possess many of the properties of objective probabilities. (Beach, 1966; Beach & Wise, 1969a; Beach & Wise, 1969b; Beach & Wise, 1969c; Barclay & Beach, 1972). Similarly, the method that will be used to obtain utilities, requiring the decision maker to allocate a given number of points to each member of a set of values in proportion

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to their importance to him or her, has been shown to yield reliable and useful measures of utility (Kennedy, 1971; Sayeki, 1972; Sayeki & Vesper, 1971; Vesper & Sayeki, 1971). Other investigations have used such subjective probabilities and utilities to predict accurately occupational preferences of business students (Mitchell & Knutsen, 1971; Wanous, 1972), areas of specialization in graduate programs (Holstrom & Beach, in press), and a number of other behaviors (Mitchell & Biglan, 1971).

At the same time that the present study was being developed other investigators in the family planning area proposed similar methods for the study of contraceptive use (Fishbein, 1972; Fishbein & Jaccard, 1973) and of birth planning decisions (Hass, in press). Using models mathematically similar to the SEU model, furthermore, investigators have predicted attitudes toward birth control (Crawford, 1973; Insko, Blake, Cialdini, & Mulaik, 1970), contraceptive use (Jaccard & Davidson, 1972) and the intention to have a third child (Werner, Middlestadt-Carter, & Crawford, 1974).

Present Study

Based on the assumptions, model, and past research discussed above, the present study is the first phase of a program on birth planning aimed at both elucidation of values and prediction using the model. This first phase involved 1) development of a comprehensive, hierarchically organized set of values related to birth planning decisions and 2) comparison of the subjective expected utilities related to birth planning decisions across subjects differing in sex and parity. The study of the predictability of birth decisions will take from two to four years to complete.

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and will be reported when complete.

Development of the Hierarchy of Birth Planning Values (Hierarchy)

Our first task was to compile a list of the values that people consider relevant to the birth planning decision. The goal was to evolve a hierarchically arranged list so that a decision maker could consider subparts separately, thus easing the information processing load mentioned in assumption 1, above. To do this we began by reviewing the literature (Bogue, 1966; Flapan, 1969; Insko, Blake, Cialdini, & Mulaik, 1970); Pohlman, 1969; Rainwater, 1965) to get suggestions from previous studies and then built on this foundation by interviewing couples and adding the values they mentioned to the list.

Unfortunately, the recent comprehensive reviews of values related to birth planning (Fawcett & Arnold, 1973; Hoffman & Hoffman, 1973; Kirchner & Locasso, 1974) were not available to us at that time. From our review of the literature and from interviews with eight couples, however, a collection of neutrally stated values (i.e., worded so that a positive or negative valence would not be attached automatically to the value), were developed. A hierarchically organized outline of birth planning values evolved with appropriate categories, category lables, and exemplars of the values in each category defining its meaning (see Table 1).

Insert Table 1 about here

Because the usefulness and generality of the Hierarchy of Birth Planning Values depends upon the degree to which it makes sense to a variety of people, an additional 40 persons who had not participated in its construction were asked to assign the exemplar statements to the categories. The degree of agreement about where the exemplar value cards

belong in the Hierarchy was found to be significant. The result of this aspect of the investigation was a Hierarchy of Birth Planning Values (Hierarchy) that contained a fairly comprehensive list of values related to birth planning, that is hierarchically organized, and that has reasonably good interjudge reliability. (More precise details of the development of the Hierarchy of Birth Planning Values may be found in Beach, Townes, Campbell, & Keating, 1974).

Comparison of the Subjective Expected Utilities Across Parity Groups

The second aspect of the study was to determine what values are related to the birth planning decision. Are these values similar for husbands and wives? Do they change as a function of family size?

Subjects. Subjects were 63 married couples including 23 with no children, 33 with one child, and 27 with two children, for a total of 126 individuals. Criteria for inclusion in the study were: present use of a contraceptive, no history of infertility or adoption, no history of a sterilization procedure, and residence in the Seattle area hopeful for at least two years. Each couple was paid $2.50 for transportation and, where appropriate, an additional $2.50 for babysitting costs. They were recruited from educational and religious institutions. Subjects were primarily highly educated and middle class (see Table 2). They were not randomly selected

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Insert Table 2 about here
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and are not representative of the general population.

Procedures. Subjects were given a 16 by 40 inch display of the Hierarchy of Birth Planning Values (Table 1) under conditions where the

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husband and wife were in separate rooms. Subjects were asked to assign a plus or a minus to each of the twenty subsets of values to indicate whether that particular subset of values made them want to have a child (+) or not want to have a child (-). Following this, subjects assigned importance ratings to each of the categories in the Hierarchy. For example, subjects were asked to consider Section IA on the Hierarchy and to "divide 100 points between categories 1, 2, 3, and 4 proportionally to their relative importance to you." Importance ratings continued from the lowest to the highest levels of the Hierarchy with the final rating being a division of 100 points among categories I, II, and III.

Probability estimates were obtained next by asking the subjects how certain they were that having a child in the next two years would have a particular effect upon the attainment of their values. For example, subjects were asked, "How certain are you that having a child in the next two years will have a positive (or negative) effect upon the attainment of your values concerning the physical aspects of having a baby?" Certainty statements were obtained for each of the 20 lowest level subsets of values on the Hierarchy. Response possibilities and their associated values were: absolutely certain (90), very certain (80), certain (70), somewhat certain (60) and uncertain (50). Where the valence was positive the subjective probability of attaining a particular subset of values by having a child (P_i) was the value associated with the degree of certainty, and the subjective probability of attaining a particular subset of values by not having a child ($1-P_i$) was its complement. Where the valence was negative the numbers were reversed.

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Expected utility, therefore, was operationally defined as the ratings of importance and probability as the ratings of the degree of certainty that the values would be brought about by having (or not having) a (another) child in the next two years. Subjective expected utility was operationally defined for the decision to have (SEU_Y) and the decision not to have (SEU_N) as the summed product of the utilities and probabilities associated with each decision alternative. A difference score ($D = SEU_Y - SEU_N$) was computed for each of the 20 lowest level subsets of values on the Hierarchy. These difference scores were then summed in several ways to yield the following dependent variables for each subject:

(1)	One variable subjective expected utility differences	Summation of subjective expected utility differences across all categories of the Hierarchy
(2)	Three variable subjective expected utility differences	Summation of subjective expected utility differences up to the highest levels of the Hierarchy: I, II, and III
(3)	Eight variable subjective expected utility differences	Summation of subjective expected utility differences up to the next to highest levels of the Hierarchy: IA, IB, IC, IIA, IIB, IIIB, IIIC
(4)	Twenty variable subjective expected utility differences	Subjective expected utility differences within each of the lowest levels of the Hierarchy: IA1, IA2, IA3, IA4, IB1,....IIIA1, IIIA2, IIIB, IIIB.

Group differences were evaluated by means of univariate and multivariate analysis of variance procedures. Two-tailed tests of significance were used throughout.

Results and Discussion. Within parity, across sex comparisons of subjective expected utility difference scores were evaluated by means of the Hoteling One Group T-Square (Afifi & Azen, 1972). F values were computed separately for the three, eight and twenty variable subjective expected utility differences at each of the three parities. Husbands' and wives' one variable subjective expected utility difference scores were compared within parity groups by means of the t test. Not one of the twelve comparisons reached statistical significance. Husbands did not differ from their wives in their attitudes associated with birth planning decisions. Husbands and wives within this sample were remarkably homogenous with respect to subjective expected utilities associated with birth planning decisions in all of the three parity groups.

The next question asked was, do subjective expected utility values associated with fertility decisions remain stable across family size or do they change as parity changes? Differences in group mean scores on the three, eight and twenty variable subjective expected utility difference scores were compared across parities by means of discriminant function analyses; the one variable subjective expected utility difference scores were compared by analysis of variance for the three group comparisons and t test for the two group comparisons.

The attitudes of married males (Table 3) toward fertility decisions

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Insert Table 3 about here
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appear to be more homogeneous across parity groups than those of married females (Table 4). Where differences exist for males, these differences

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Insert Table 4 about here
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were primarily in the lowest level of the Hierarchy of Birth Planning Values. Husbands with no children differed from husbands with two children

on the twenty variable subjective expected utility difference scores (X^2 = 34.335, d.f. = 20, $p < .05$). For men, having two children leads to changes across a large number of small discrete factors relevant to fertility decisions.

Among married females the importance of values and the associated degree to which such values are perceived as being attained by having a (another) child changes significantly as a function of parity. All comparisons across the three parity groups were significant as well as all comparisons between women with no children and women with one child. Achieving motherhood changes attitudes toward future fertility decisions. The lack of significant differences between females with one and two children on the eight (X^2 = 12.735, d.f. = 8, p = n.s.) and twenty (X^2 = 28.031, d.f. = 20, p = n.s.) variable subjective expected utility difference scores suggest that the small discrete attitudes toward fertility decisions become set once motherhood has been attained.

The direction of change in overall attitudes toward family planning decisions is shown in Figure 1 where group mean scores on the one variable

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Insert Figure 1 about here

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subjective expected utility differences are plotted. Remember that positive scores indicate maximizing subjective expected utility by having a (another) child, negative scores indicate maximizing the attainment of values by not having a (another) child, while values near zero represent ambivalence. In our sample, becoming a father or mother is viewed as mildly positive. Once parenthood has been attained, attitudes toward having a second child are very positive. A significant drop in the subjective expected utility for having a third child, however, is present for both fathers (t = 1.96,

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d.f. = 58, p = .05) and mothers (t = 2.90, d.f. = 58, p < .01). Having a third child is viewed very negatively in both instances. Although married women are reported to want somewhere between 2.5 and 3.4 children (Chilman, 1973), fathers and mothers in this sample rate the birth of a third child as interfering with the attainment of their values.

The final question is, how do the subjective expected utilities associated with birth planning decisions change as a function of family size? What attitudes change as husbands and wives consider increasing their family size from zero to two to three children. Group mean scores on the three, eight and twenty variable subjective expected utility differences are plotted in Figure 2 for males and in Figure 3 for females.

Insert Figures 2 and 3 about here

For husbands without children the most important childbearing considerations are those related to the experience of parenthood. Parenting is the single most important motivation, not the impact of the child upon the self, spouse, marriage, significant others or society. The positive aspects of becoming a father are the father's role in educating and training the child and in the opportunity to establish a close relationship with another human being. Caring for and/or being depended upon by a child and from the sharing of mutual interests. A second motivation for childbearing among prospective fathers is to sustain and improve relationships with relatives. The first child is seen as bringing the couple into closer relationship with brothers, sisters, and prospective grandparents. The most compelling reason not to become a father is interference in achieving educational and vocational goals. Husbands feel that having a first child might prevent himself and/or his wife from attaining educational and career goals.

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Once having become a father, motivations for parenthood remain high. When fathers consider having a second child, the same components again are viewed positively, namely the opportunity to assist the child in developing competence and to benefit from the relationship with the child. At this stage of family development, though, a second, and more important childbearing consideration is the prospective child's effect upon the existing child. Establishing positive relationships among siblings appears to be fathers' most powerful motivation for having a second child. The affiliative value of the second child, therefore, extends beyong the father-child relationship to the relationship between children. Fathers, recognize, however, the negative impact of a second child upon the attainment of societal values such as the conservation of resources, environmental pollution, and increasing population.

Fathers are, in general, ambivalent or negative about having a third child. Where fathering was once an important value, such needs appear to have been met with two children. The most compelling reasons for having a third child are the attainment of desired values related to family size and sexes of children accompanied by concern for sibling relationships. This is outweighed, however, by the perception of the third child as having a very negative influence upon the material well-being of the family. The anticipated financial costs of raising a third child is the most inhibiting factor in fathers' childbearing considerations.

Among wives without children the single most important motivation for childbearing is the attainment of values related to significant others. Becoming a mother establishes, maintains and/or enhances affiliation with

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parents and other family members. Contrary to our expectations, parenting needs among women without children were secondary to establishing close relationships with relatives. Women without children were ambivalent about the impact of the child upon the attainment of values related to themselves, their spouse, the marriage and society. The prospect of having a child, furthermore, was perceived as interfering with their ability to achieve educational and career goals. Women in this group seek to maintain roles other than mothering and view childbearing as inhibiting their ability to achieve roles outside of the home.

Once women have had one child, however, the motivations for further childbearing are very high in terms of realizing values related to self and spouse and to children. Affiliative needs with significant others become much less important and are replaced by desires for mothering per se. Mothers with one child are very positive about caring for another baby, the opportunity to assist in the development and training of a second child, and the companionship with another human being. The single most important motivation for having a second child, however, is to provide a playmate, friend, etc. for the first child. Thus the affiliative needs of the only child provide a strong motivation for further childbearing. Again, interference with the attainment of educational and vocational goals is the primary inhibiting factor upon mothers' consideration of having a second child.

The importance of mothering remains very high among women considering the possibility of having a third child. Apparently, the experience of mothering two children does not diminish the importance of parenthood. Rather the value placed upon having an educative role with subsequent

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children and the opportunity to establish yet another close relationship with a natural child is enhanced. The experience of mothering increases the value of parenting. Again, the single most important factor for having a third child is the influence of the prospective child upon existing children. The third child is seen as having a positive effect upon sibling relationships. In the case of women considering the possibility of a third child, however, economic considerations join educational and career factors as major deterrents to further childbearing.

Summary and Conclusions

This investigation was the first phase of a program aimed at exploring birth-relevant values and the application of subjective expected utility theory to the study of birth planning decisions. A comprehensive range of birth planning values for well-educated young adults was obtained and organized into the Hierarchy of Birth Planning Values. This instrument was then administered to 63 couples of different parities. Group differences in subjective expected utilities related to birth planning decisions were compared.

Husbands and wives were remarkably similar in their values associated with birth planning decisions although in both groups values pertaining to fertility decisions changed as a function of family size. Couples without children were ambivalent about the prospect of having a child. Parents with one child were very positive about having a second child. Those with two children were negative about the prospect of having a third child.

In considering the possibility of having a first child, husbands'

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positive considerations centered around the opportunity for experiencing parenthood while wives saw the birth of the first child as an opportunity to enhance relationships with relatives. Perhaps one strong factor for becoming a mother is to have a baby for another family member, presumably the grandparents. After experiencing motherhood, however, motivations for parenting among women are very high and remain high even while considering the possibility of a third child. In contrast, fathers' motivation for parenthood is significantly diminished after having two children. The primary motivation for having a second child among both mothers and fathers is to provide companionship for the existing child. There appears to be a strong cultural bias against having an only child. At all stages of family size the impact of the child upon society is viewed at best as ambivalent and generally as negative. In addition to values related to society, the attainment of educational and vocational goals plus economic concerns were the major deterrents to further childbearing.

The sample currently is being extended to measure the importance and associated probabilities of values related to birth planning decisions among couples with three and four existing children. We will then be able to compare subjective expected utilities across the major parity groups and determine the primary factors impinging upon fertility decisions. During the second and third years of the study the accuracy of the behavioral decision model in predicting birth outcomes will be evaluated. The hope is to determine the range of ambivalence below which couples seek to maximize their values by not having children and above which couples seek to maximize their values by having children. Couples in the ambivalent range might

then be aided, through counseling, to crystalize their values so as to have that number of children that will bring about maximum benefit to themselves. We will thus be able to help people make an orderly examination of the variables involved in the birth planning decision and will have learned more about the variables people consider relevant to birth planning.

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Table 1. Hierarchy of Birth Planning Values

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I. Values Centered on Self and Spouse

A. Personal Identity

1. Physical aspects of having a baby

--The experience of being pregnant and giving birth
--Physical risks of childbirth
--Having a child would permit a different birth control method
--Child's effect on wife's physical appearance

2. Growth and maturity

--Child as a normal step in my/our ongoing "life process"
--Child as an opportunity to reproduce myself or my spouse
--Child's effect on my development as a worthwhile, mature, responsible person
--Child's effect on spouse's/my ability to be young and flexible

3. Self-concept

--Demonstrate to myself and others that I can produce a normal child
--Child as an opportunity to be a good parent
--Child's effect upon becoming an adequate and mature woman/man

4. Educational and vocational values

--Child's effect on the husband's educational or career opportunities
--Child's effect on the wife's educational or career opportunities
--Effects of a working mother on the child

B. Parenthood

1. Caring for the child

--Caring for a new baby
--The experience of breast feeding a (another) baby
--Being depended upon by the child
--The effects of a (another) child on household tasks, responsibilities, and workload
--Mutual cooperation with my spouse in raising a (another) child

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2. Parents' role in education and training a child

--Spouse's/my willingness and ability to teach the child specific skills such as athletics or cooking
--Our willingness and ability to help the child to achieve
--Our willingness and ability to contribute to the child's formal education
--Our willingness and ability to pass on religious beliefs and values

3. Parent-child relationships

--Observing the child's development
--Sharing of one's recreational activities with the child
--Child as a companion now and, perhaps, in old age
--Holding the child and/or playing with him or her

II. Values Centered on Children

A. Family Characteristics

1. Family size and sexes of children

--Child might balance the number of boys and girls in our family
--Child's effect on our family's size

2. Ages of parents

--Spouse's/my age at birth of first and/or last child
--Our ages when we have grandchildren
--Our ages when the child (children) leaves home

B. Health and Well-Being of Children

1. Sibling (brother-sister) relationships

--Child's effect on present children
--Considerations about spacing children so that they do not share the same group of friends or so that they're not too dissimilar in ages, etc.

2. Prospective child

--Child's long-term physical health and psychological adjustment
--Child's possible mental or physical birth defects

3. Effects of society on child

--Effects of the existing educational, social, and political systems on the child

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--Effect of future wars on the child
--Effects of the culture's traditional biases (racism, sexism, materialism, etc.) on the child

C. Well-Being of Family

1. Material well-being of family

--Costs of child's food, clothing, shelter, and medical, educational and recreational needs
--Child's effect on our having a good house, furniture, appliances, etc.
--Child's effect on our present financial situation and ability to get and/or to buy other things we want
--Child's effect on the amount of money we would have for travel and other forms of recreation

2. Non-material well-being of family

--Child's effects on our present mobility, life style, degree to which I/spouse settle down
--Child's effect upon our having a good time
--Child's effects on relationships among present family members

3. Well-being of self and spouse

--Effects of child (children) on parents' ability to maintain separate roles and have activities separate from spouse and from children
--Child's long range effects on the parents' physical and/or mental health
--Competition with me for my spouse's attention
--Competition with spouse for the child's attention

4. Well-being of the marriage

--Child's effect on the time I have for my spouse
--Child's effects on my and/or my spouse's commitment to our marriage
--The child as a symbol or product of our love
--Child's effect on sexual satisfaction in the marriage
--Effects of trying to become pregnant upon sexual satisfaction

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III. Values Centered on Significant Others

A. Family

1. Relationships with relatives

--Child's effect on our relations with spouse's/my parents
--Provide grandchildren for spouse's/my parents
--Child's effect on our relations with spouse's/my brothers and sisters

2. Family traditions

--Child's effect on the similarity of our family to the one in which I/spouse grew up
--Child as continuation of our family name and/or traditions
--Child as an opportunity for us to fulfill traditional roles of father and mother

B. Friends

--Child's effect on our relations to our friends who have children
--Demonstration that I/we can raise children better than friends can
--Child's effect on the degree to which we would be like other people
--Child's effect on the social pressure we feel to have a (another) child and the way we are treated as a couple

C. Society

--Child (children) as fulfillment of religious values
--Child in relation to the conservation of natural resources, pollution, population problems, etc.
--Families' and family life's contribution to stability of society as a whole

Table 2. Subject Characteristics

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Variable	Parity 0 Male	0 Female	1 Male	1 Female	2 Male	2 Female
Number of Subjects	23	23	33	33	27	27
Average age	28.6	25.7	30.4	29.0	32.1	31.2
Average years married	3.5	3.5	5.8	5.8	8.0	8.0
Average age 1st child	———	———	2.9	2.9	5.1	5.1
Average age 2nd child	———	———	———	———	2.6	2.6
Average years education	17.2	16.0	16.5	16.0	17.2	15.7
Average yearly income	$10,870	$10,870	$12,425	$12,425	$14,445	$14,445
Occupation: Professional & Managerial	65.2%	56.5%	63.6%	42.4%	77.8%	22.2%
Other	21.7%	26.0%	21.2%	12.1%	18.5%	11.1%
Unemployed	13.0%	17.4%	15.2%	45.5%	3.7%	66.7%
Religion: Protestant	10	10	14	15	8	9
Catholic	3	2	2	2	1	1
Jewish	0	1	0	0	3	3
No	10	10	17	16	15	14

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Table 3. Within males across parity comparisons of subjective expected utility difference scores.

Variable	Across Parity Comparisons			
	0 - 1 - 2	0 - 1	0 - 2	1 - 2
One variable subjective expected utility differences	F = 1.991 d.f. = 2 and 80 p = n.s.	t = -.64 d.f. = 54 p = n.s.	t = 1.19 d.f. = 48 p = n.s.	t = 1.96 d.f. = 58 p = .05
Three variable subjective expected utility differences	X^2 = 8.876 d.f. = 6 p = n.s.	X^2 = 4.152 d.f. = 3 p = n.s.	X^2 = 6.195 d.f. = 3 p = n.s.	X^2 = 5.294 d.f. = 3 p = n.s.
Eight variable subjective expected utility differences	X^2 = 28.155 d.f. = 16 p < .05	X^2 = 9.963 d.f. = 8 p = n.s.	X^2 = 14.227 d.f. = 8 p = n.s.	X^2 = 10.879 d.f. = 8 p = n.s.
Twenty variable subjective expected utility differences	X^2 = 54.532 d.f. = 40 p < .06	X^2 = 27.953 d.f. = 20 p = n.s.	X^2 = 34.335 d.f. = 20 p < .05	X^2 = 23.301 d.f. = 20 p = n.s.

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Table 4. Within females across parity comparisons of subjective expected utility difference scores

Variable	Across Parity Comparisons			
	0 - 1 - 2	0 - 1	0 - 2	1 - 2
One variable subjective expected utilities	$F = 4.408$ d.f. = 2 and 80 $p < .05$	$t = -2.10$ d.f. = 54 $p < .05$	$t = .71$ d.f. = 48 p = n.s.	$t = 2.90$ d.f. = 58 $p < .01$
Three variable subjective expected utilities	$X^2 = 18.333$ d.f. = 6 $p < .01$	$X^2 = 10.554$ d.f. = 3 $p < .01$	$X^2 = 7.254$ d.f. = 3 $p = .06$	$X^2 = 8.386$ d.f. = 3 $p < .05$
Eight variable subjective expected utilities	$X^2 = 50.209$ d.f. = 16 $p < .01$	$X^2 = 28.092$ d.f. = 8 $p < .01$	$X^2 = 24.474$ d.f. = 8 $p < .01$	$X^2 = 12.735$ d.f. = 8 p = n.s.
Twenty variable subjective expected utilities	$X^2 = 71.368$ d.f. = 40 $p < .01$	$X^2 = 43.174$ d.f. = 20 $p < .01$	$X^2 = 37.044$ d.f. = 20 $p < .01$	$X^2 = 28.031$ d.f. = 20 p = n.s.

FIGURE CAPTIONS

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Fig. 1. Subjects' mean one variable subjective expected utility difference scores by parity

Fig. 2. Mean scores by parity of male subjects on the a) three, b) eight and c) twenty variable subjective expected utility difference scores.

Fig. 3. Mean scores by parity of female subjects on the a) three, b) eight, and c) twenty variable subjective expected utility difference scores.

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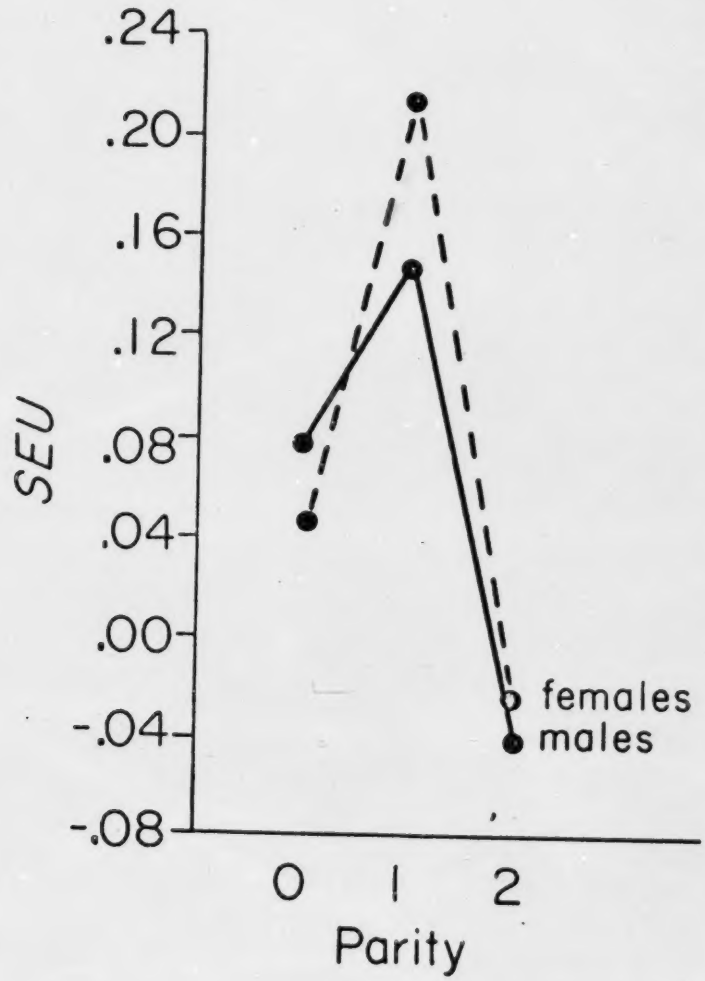

Fig 1

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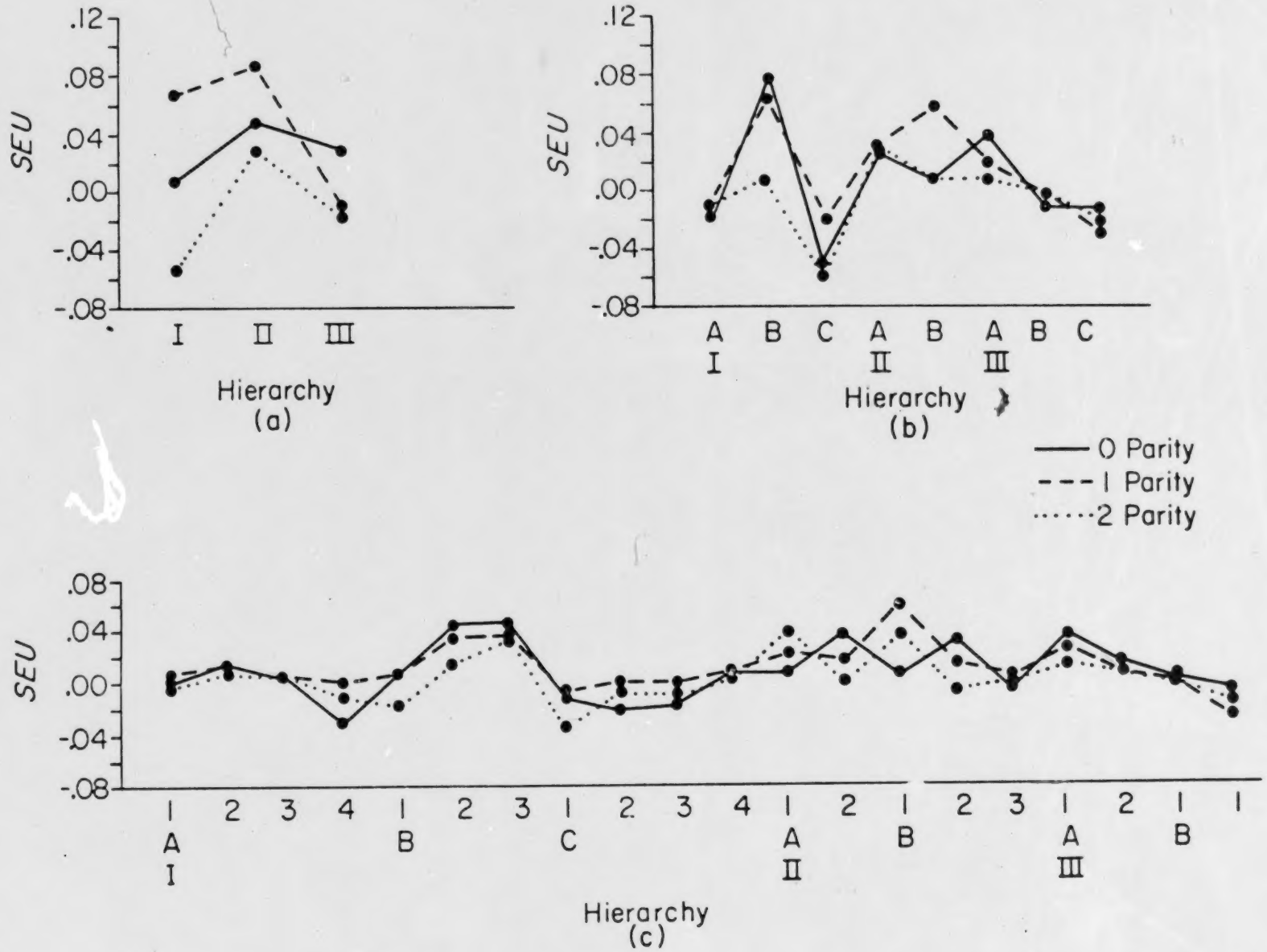

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